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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER	
AVELLINO, JOSEPH E	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/986,417	ERIKSSON ET AL.	
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13-38 and 40-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13-38 and 40-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-11, 13-38, and 40-57 are pending in this examination; claims 1 and 33 independent.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3, 5, 6, 8, 19, 21, 24-26, 28-33, 35-37, 47-51, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger et al. (USPN 6,748,217) (hereinafter Hunzinger) in view of Feder et al. (USPN 6,552,881) (hereinafter Feder).

3. Referring to claim 1, Hunzinger discloses a method for selecting access points (i.e. base stations Figure 1, 104a-j) for a communication device (i.e. mobile unit Figure 1, 106) comprising the steps of:

determining a position of the communication device (e.g. abstract);

determining the available access points (i.e. service system) (e.g. abstract);

obtaining information related to the available access points (i.e. positions of the service systems to select the proper service system) (e.g. abstract);

determining combined requirements (i.e. service availability) of the communication device, said combined requirements including service and application

requirements of a service and application requested by the communication device (e.g. abstract; Figure 3, ref. 310);

mapping the information related to the available access points with the position and the combined requirements of the communication device to obtain mapped information (e.g. abstract); and

selecting at least one access point as a function of the obtained mapped information (e.g. abstract; Figure 3, 330, 355, and 360; col. 2, lines 40-47).

Hunzinger does not specifically disclose the combined requirements include quality of service requirements and connection transport requirements of a service and application requested by the communication device. In analogous art, Feder discloses another method for selecting access points for a communication device wherein the access point is selected as a function of the communication link quality and load levels (i.e. QoS as the signal link quality metric such as signal to noise ratio, bit error rate, packet ACK percentage, and connection transport requirements inherently are considered as QoS since this deals with the quality of the service to the communication device) (e.g. abstract; col. 6, line 35 to col. 7, line 12). It would have been obvious to one of ordinary skill in the art to combine the teaching of Feder with Hunzinger in order to provide the communication device of Hunzinger the ability to select and switch between serving access points in response to network conditions, thereby providing a high quality of service to the user as supported by Feder (col. 2, lines 30-35).

4. Referring to claim 2, Hunzinger discloses the mapping step comprises determining a geographical position of the available access points relative to the position of the communication device (col. 5, lines 11-34); and

determining a spatial relation between an antenna of the communication device and the available access points, wherein the information related to available access points includes information related to the position and the spatial relation between the available access points and the antenna of the communication device (col. 5, line 65 to col. 6, line 25).

5. Referring to claim 3, Hunzinger discloses the mapping is performed in the communication device (Figure 3; col. 4, line 63 to col. 6, line 46).

6. Referring to claim 5, Hunzinger discloses the mapping is performed by a node (i.e. the mobile unit) in an access network (Figure 3; col. 4, line 63 to col. 6, line 46).

7. Referring to claim 6, Hunzinger discloses a node in the access system provides the information related to the position and the spatial relation between the access points and the communication device (col. 4, line 63 to col. 5, line 10).

8. Referring to claim 8, Hunzinger discloses the node is common to at least two access networks within a network system (i.e. GPS satellites are common to the entire

network, which encompasses at least two access networks) (col. 4, line 63 to col. 5, line 10).

9. Referring to claim 19, Hunzinger discloses the selection is made without user interaction (e.g. abstract).

10. Referring to claim 21, Hunzinger discloses the determined position is not the current geographical position of the communications device (i.e. estimated from last known position) (e.g. abstract).

11. Referring to claim 24, Hunzinger discloses the determined position is a predetermined position (i.e. estimation from a last known position) and the determined position is not related to the current position of the communication device (it is related to the last position, not the current position) (e.g. abstract).

12. Referring to claim 25, Hunzinger discloses determining an environment of the communication device, wherein the information related to access points is based upon an environment of the communication device and the mapping (i.e. the environment of the communication device can be broadly construed as the area surrounding the communication device, which consists of the access points) (e.g. abstract).

13. Referring to claim 26, Hunzinger discloses recommending an access point, wherein the environment of the communication device is considered in the recommendation (i.e. priority) (col. 6, lines 1-25).

14. Referring to claim 28, Hunzinger discloses the recommendation is presented to a central intelligence (col. 6, lines 1-46).

15. Claim 29 is rejected for similar reasons as stated above.

16. Referring to claim 30, Hunzinger discloses the recommendations include directions (i.e. distances) for locating at least one access point (col. 6, lines 1-46).

17. Referring to claim 31, Hunzinger discloses the directions include information related to distance or spatial position between the communication device and the access points (col. 6, lines 1-46).

18. Referring to claim 32, Hunzinger discloses the mapped information is a subset (i.e. all those access points beyond a threshold distance) of the determined available access points, and wherein the selection of at least one access point is not a point in the client (i.e. a point inside of a threshold distance) (the Office takes the term "subset" as a collection of entities greater than zero but less than the total number of entities in the whole population) (col. 6, lines 1-46).

19. Claims 33, 35-37, 47-51, and 53-55 are rejected for similar reasons as stated above.

Claims 4, 7, 9, 20, 22, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of Feder in view of Harris et al. (USPN 6,331,972) (hereinafter Harris).

20. Referring to claim 4, Hunzinger in view of Feder discloses the invention substantively as described in claim 2. Hunzinger in view of Feder further discloses that a database is used to map the service system access points (e.g. abstract) however does not specifically disclose that this database is located on a second device in communication with the communication device via a personal area network. In analogous art, Harris discloses another method of selecting access points wherein the communication device is located within a personal area network, and the database is in the personal area network (Figure 13; coll. 13, lines 10-25; col. 14, lines 3-24; col. 20, lines 40-56). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Harris with Hunzinger and Feder, since Hunzinger discloses there is a database in the system, however does not disclose how it is in communication with the communications device (e.g. abstract; col. 5). This would lead one of ordinary skill in the art to research methods in how to connect databases to

communications devices, eventually finding the system of a personal area network as described in Harris (Figure 11).

21. Claims 7, 9, 20, 22, and 34, are rejected for similar reasons as stated above.

Claims 10, 11, 15, 16, 18, 27, 38, 41-44, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of Feder in view of Agre.

22. Referring to claim 10, Hunzinger discloses the invention substantively as described in claim 1. Hunzinger in view of Feder does not disclose the selection step is performed with user interaction, rather automatically. In analogous art, Agre discloses another mobile service selection system wherein the selection step is performed with user interaction (col. 6, lines 5-8, 55-60). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Agre with Hunzinger and Feder since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Agre and the gateway determining the location of the subscriber unit (Figure 3A, ref. 106).

23. Referring to claim 11, Hunzinger in view of Feder discloses the invention substantively as described in claim 1. Hunzinger in view of Feder does not disclose the

combined requirements of the communication device are based upon user preferences. In analogous art, Agre discloses the requirements of the communication device are based upon user preferences (Figure 3A, ref. 104, preferred service ID; col. 7, lines 29-58). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Agre with Hunzinger and Feder since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Agre and the gateway determining the location of the subscriber unit (Figure 3A, ref. 106).

24. Referring to claims 15 and 16, Hunzinger in view of Feder discloses the invention substantively as described in claim 1. Hunzinger in view of Feder does not disclose the user preferences are selected from the group consisting of: security services provided by an access point, trust between the device and the access point, cost associated with establishing the connection, quality of the connection, reliability of the connection, and speed of data transfer and stored in the communication device. In analogous art, Agre discloses the user preferences are quality of the connection (i.e. service provider) in the communication device (col. 7, lines 28-58). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Agre with Hunzinger and Feder since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of

ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Agre and the gateway determining the location of the subscriber unit (Figure 3A, ref. 106).

25. Referring to claim 18, Hunzinger in view of Feder discloses the communication system selectively provides the communication device with information related to access points (e.g. abstract) but does not disclose the preferences are stored in a communication system. In analogous art, Agre discloses the preferences are stored in a communication system (i.e. the communications device) (e.g. abstract). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Agre with Hunzinger and Feder since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Agre and the gateway determining the location of the subscriber unit (Figure 3A, ref. 106).

26. Referring to claim 27, Hunzinger in view of Feder discloses the invention substantively as described in claim 26. Hunzinger does not disclose the recommendation is presented to a user. In analogous art, Agre discloses the recommendation is presented to a user (col. 6, lines 25-67). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the

teaching of Agre with Hunzinger since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Agre and the gateway determining the location of the subscriber unit (Figure 3A, ref. 106).

27. Claims 38, 41-44, and 46 are rejected for similar reasons as stated above.

Claims 14, 17, 23, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of Feder in view of Agre as applied to the claims above, and further in view of Harris.

28. Referring to claim 14, Hunzinger in view of Feder in view of Agre discloses the invention substantively as described in claim 11. Hunzinger in view of Feder in view of Agre do not disclose the combined requirements are based upon user preferences of a second communication device with a PAN. In analogous art, Harris discloses user preferences are stored on a second communication device within a PAN (Figure 17; col. 13, lines 10-45). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Harris with Hunzinger, Feder, and Agre, since Hunzinger discloses there is a database in the system, however does not disclose how it is in communication with the communications device (e.g. abstract; col. 5). This would lead one of ordinary skill in the art to research methods in how to

connect databases to communications devices, eventually finding the system of a personal area network as described in Harris (Figure 11).

29. Claims 17, 23, and 45 are rejected for similar reasons as stated above.

Claims 12,13,39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of Feder in view of Agre as applied in the claims above, and further in view of Pinard.

30. Referring to claim 12, Hunzinger in view of Feder in view of Agre discloses the invention as stated in claim 11. Hunzinger in view of Feder in view of Agre do not specifically disclose the requirements of the device are further based upon service/application requirements of the communication device. In analogous art, Pinard discloses another method of selecting access points wherein requirements of the device are further based upon service/application requirements (i.e. communication requirements) of the communication device (col. 6, lines 52-57). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Pinard with Hunzinger, Feder and Agre since Hunzinger discloses the prioritization of the access systems is well known in the art and will not be discussed (col. 6, lines 19-20). This would lead one of ordinary skill in the art to search for access point prioritization methods and would eventually find the system of Pinard wherein the

access systems are prioritized based on received signal strength and load (e.g. abstract; col. 5, line 62 to col. 6, line 35).

31. Referring to claim 13, Hunzinger in view of Feder in view of Agre discloses the invention as stated in claim 11. Hunzinger in view of Feder in view of Agre do not specifically disclose determining the capabilities of the access network, comparing the requirements with the capabilities, selecting the requirements common, determining mismatches, and compromising on the mismatches. In analogous art, Pinard discloses another method of selecting access points which discloses determining the capabilities of the access network, comparing the requirements with the capabilities, selecting the requirements common, determining mismatches, and compromising on the mismatches (Figure 3; col. 5, line 14 to col. 6, line 35). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Pinard with Hunzinger, Feder and Agre since Hunzinger discloses the prioritization of the access systems is well known in the art and will not be discussed (col. 6, lines 19-20). This would lead one of ordinary skill in the art to search for access point prioritization methods and would eventually find the system of Pinard wherein the access systems are prioritized based on received signal strength and load (e.g. abstract; col. 5, line 62 to col. 6, line 35).

32. Claims 39, and 40 are rejected for similar reasons as stated above.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunzinger in view of Feder in view of Vaara et al. (USPN 6,321,083) (hereinafter Vaara).

33. Hunzinger in view of Feder discloses the invention substantively as directed in claim 50. Hunzinger in view of Feder does not disclose including directions to a geographical area which is an intermediate position within communication range of at least two access points, which are to be used simultaneously. Vaara discloses another system which includes directions to a geographical area which is an intermediate position within communication range of at least two access points, which are to be used simultaneously (e.g. abstract; Figures 5, 6, 10, 11). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Vaara with Hunzinger and Feder since Hunzinger discloses that numerous methods can be used in determining the location of the mobile unit (col. 2, lines 40-47), this would lead one of ordinary skill in the art to search for methods to determine the position of the handheld unit, eventually finding the methods taught by Vaara and the geographical positioning of the mobile unit by usage of timing advance measurements as well as adjacent cell management (col. 8, line 63 to col. 9, line 10).

Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al. (USPN 5,594,947) (cited by applicant in IDS) (hereinafter Grube) in view of Hunzinger in view of Feder.

34. Grube discloses a method for selecting access points wherein the environment is a heterogeneous transport environment (i.e. type 1 and type 2 services) and the application data related to access technologies (i.e. requested service and alternate service, wherein each part is mapped onto different access techniques to the combined requirement (e.g. abstract; Figure 2). Grube does not specifically disclose the node receives a position and combined requirements of the communication device. In analogous art, Hunzinger in view of Feder discloses another system which receives a position and combined requirements of the communication device (col. 5, line 1 to col. 6, line 26). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hunzinger with Grube since Grube discloses determining the geographical location of the user, however does not state how this is determined (col. 3, lines 10-34). This would lead one of ordinary skill in the art to research techniques in device location schemes, eventually finding the system as described in Hunzinger using GPS to locate the mobile device (e.g. abstract; col. 5, lines 1-10).

Response to Amendment

35. Applicant's arguments with respect to claims 1-11, 13-38, and 40-57 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

36. It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art. As it is Applicant's right to continue to claim as broadly as possible their invention. It is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality (i.e. *access alternatives within walking distance of the user*, pp. 13-14, ¶ 35) that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA
July 21, 2005

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100